INNOVATIONS IN SOCIAL AND ENVIRONMENTAL REPORTING BASED ON THE KNOWLEDGE OF STAKEHOLDERS' INFORMATION NEEDS

Guşe Gina Raluca
Academy of Economic Studies, Faculty of Accounting and Management Information Systems, Str. Bozieni, Nr. 8, Bl. 831, Sc. 1, Ap. 906, cod 061617, Bucharest, Romania, gguse@cig.ase.ro
Caraiani Chiraţa
Academy of Economic Studies, Faculty of Accounting and Management Information Systems, ccaraiani@cig.ase.ro
Dascălu Cornelia
Academy of Economic Studies, Faculty of Accounting and Management Information Systems, cornelia.dascalu@cig.ase.ro
Lungu Camelia Iuliana
Academy of Economic Studies, Faculty of Accounting and Management Information Systems, camelia.lungu@cig.ase.ro

Starting form the accounting status as a social and institutional practice and the economic role of financial reporting, the paper addresses the issue of social and environmental accounting and reporting regulation. We propose an analysis of the main reporting models in the recent academic literature, in order to ascertain the development trends defined by the academic accounting research in conceptualizing a sustainability reporting model. Using the experience drawn from reporting practice in the form of voluntary social and environmental disclosures, correlated with the theory of reflexive modernity, we propose the interactions between regulation, risk, trust, performance and value to mitigate the voluntary disclosure vs. regulation dilemma.

Keywords: social and environmental reporting, voluntary disclosure, regulation, shareholder value, stakeholder value, risk

JEL Classification: M 40, M 48, Q 51, Q 56, Q 57

Introduction

The research in the field of financial and non-financial reporting have revealed the ability of accounting practices to create and communicate financial representations for social and organizational phenomena (Hines, 1991; Miller and Napier, 1993), with implications beyond the individual and organizational level, extending to society as a whole (Miller, 1998, Rose, 1991, Porter, 1995, Callon, 1998). For this reasons, accounting is increasingly regarded as a social and institutional practice (Miller, 1994; Hopwood, 1992).

Traditionally, the main source for environmentally responsible behaviour has been governmental regulation; social pressure represents a more recent addition. In the wake of the imminent danger of natural disasters and progressive ecosystems' degradation, environmental issues are becoming significant societal risk factors and society demands an environmentally responsible behaviour on the part of business management (Dillard et. al., 2005).

For complying with the new informational needs created as a result of the newly acquired awareness of stakeholder accountability, new reporting models have emerged, both in financial reporting theory and practice, suggesting the beginning of an accounting procedural revaluation, aimed at stressing its social significance.

The evolutionary process implies that the basic laws of supply and demand apply, endowing accounting with an economic activity status. As such, reporting practices depend on market forces, and also on political and regulatory influences. Market effects depend on both attributes of the demand for financial reporting (e.g., how information is used in financial markets or

governance), and attributes of the supply of financial reporting (e.g., the relative costs of independently verifying forward-looking and backward-looking information) (Ball, 2008).

1. Research methodology

The paper draws on the discrepancy between the evolutionary directions defined by accounting research, the current state of accounting regulations and the practice of social and environmental accounting and reporting. While new reporting models are presented in the literature, integrating in a broader perspective all value-generating and value-consuming mechanisms (the economic, social, natural and informational environment), accounting standard-setters are committed in an effort towards convergence and do not visibly approach social and environmental reporting issues. Such matters are only considered in the sense of accepting financial reporting outside financial statements, but the concepts, methods, techniques and, most importantly, the instruments for defining new value drivers have not yet been regulated. Social and environmental accounting and reporting practices are voluntary in nature, based on standards issued by independent organizations with no regulatory power.

The main issues approached in the paper are: (1) the need and (2) the possibility of regulation in the field of social and environmental accounting and reporting. We propose a theoretical approach of a deductive nature aimed at demonstrating the possibility of elaborating a conceptual framework for sustainability accounting; on these bases, we argue the need for regulation and its benefits. The research hypotheses are:

I_1. The objectives of social and environmental reporting can be modelled in the form of a conceptual framework for sustainability accounting.

I_2. The regulation of social and environmental reporting aimed at protecting the long-term interests of an entity's stakeholders lead to increased shareholder value and performance.

2. Social and environmental reporting models

Most of the conceptual development of sustainability accounting has been attributed to R. H. Gray (Lamberton, 2005) and it consists of three different methods of sustainability accounting: sustainable cost, natural capital inventory accounting and input – output analysis.

Sustainable cost accounting comprises internal costs and externalities in an integrated concept, defined as: "the (hypothetical) cost of restoring the earth to the state it was in prior to an organization's impact" (Lamberton, 2005), that is "the amount of money an organization would have to spend at an end of an accounting period in order to place the biosphere back into the position it was at the start of the accounting period" (Gray, 1994, p. 33). Drawing on the accounting concept of capital maintenance and applying it to the biosphere, Gray acknowledges the need to maintain the stock of natural capital for future generations. Sustainable cost is deducted from the accounting profit to arrive at the notional level of sustainable profit; where sustainable cost exceeds the accounting profit, the level of unsustainability can be measured in monetary terms. The sustainable cost approach provides an eloquent example of using a conventional accounting principle, such as capital maintenance, and applying it to natural capital instead of financial capital. A comparable but not similar method was proposed by Mathews (1993) as *total impact accounting*, aimed at providing an alternative to market prices, misinforming by omitting social and environmental costs. Another form of capturing social and environmental costs in a total cost concept is *full cost accounting* (Dascălu *et. al.*, 2009).

Natural capital inventory accounting involves recording and following the stocks of natural capital over time, in order to detect any changes viewed as indicators of the declining quality of the natural environment. The measurement of natural stocks can be achieved by quantitative but non-monetary methods, while some authors suggest exploring the possibility of using financial units for the valuation of natural capital (Jones, 1996). Gray offers a classification of natural capital stocks, in four main categories:

- *Critical natural capital*: the ozone layer, tropical hardwood, biodiversity.
- *Non-renewable/ non-substitutable natural capital*: oil, mineral resources.
- *Non-renewable/ substitutable natural capital*: waste disposal, energy usage.
- *Renewable natural capital*: plantation timber, fisheries.

Natural capital inventory accounting uses conventional accounting concepts, such as capital maintenance, and managerial accounting tools – inventory control. The approach was considered simplistic, because it does not properly reflect the interconnectedness and diversity of the natural and economic environment.

The input-output analysis accounts for the physical flows of material and energy inputs and product and waste outputs measured in physical units. Although resource flows can be accounted for in monetary terms, physical units are used. Especially when it is involved in the life-cycle analysis of a product, the input-output method has the potential to indicate alternative energy sources, to facilitate innovations and pollution prevention/ reduction strategies, being a first step in environmental audit activities.

An alternative approach has been proposed by Elkington (1999), describing a three-dimensional form of accounting and reporting– economic, social and environmental. The term used is *Triple Bottom Line Reporting (TBL Reporting)* and it brings together forms of reporting in monetary/financial as well as physical units. The latest version of *Global Reporting Initiative (GRI)* guidelines (2006) includes a series of indicators for voluntary disclosures outside financial statements, ideal for triple bottom line reporting, such as:

- *Economic indicators* for assessing the organizational impact on the economic circumstances specific to an entity's stakeholders, locally, nationally and globally.
- *Environmental performance indicators*: energy and water resource management, biodiversity, gas emissions, waste.
- *Social performance indicators* concerning consumer and employee rights, decent work practices, bribery and corruption, political contributions, competition and pricing, product responsibility.

Analyzing the forms of integrated reporting, we observe – on all three coordinates: social, economic, and environmental – the development of a multidimensional model, combining non-homogenous indicators that do not always allow measurement in monetary terms and require the use of alternative measurements. Qualitative as well as quantitative valuations are made in the majority of cases. Another easily observable feature in the interdisciplinary character of the indicators, requiring real cooperation between accounting and other social and environmental disciplines, extended beyond the regulatory process, by forming and training interdisciplinary reporting teams. However, the central position of certain concepts and techniques of conventional accounting in defining the structure and substance of the reports is noticeable.

Lamberton (2005) makes an important step forward in formalizing an accounting model for sustainability. Based on various definitions from the literature, five basic components of the financial accounting model have been identified: accounting reports; accounting principles; accounting records; the objectives of the accounting model; qualitative characteristics. The objective of the model is to measure organizational performance in the context of sustainability, towards decision useful objectives or for assessing the efficiency of resource management. Its realization depends on the formulation of principles, resembling those of conventional accounting, such as historical cost, conservatism or prudence, going concern, reporting period or reporting entity. Data management tools used to capture and record sustainability accounting data are analogous to the financial accounting journals, ledgers and trial balances, and environmental assets or liabilities can be defined as the objects of measurement, used for determining performance indicators. Information disclosed to users can have a quantitative as well as a qualitative form, complying with a set of qualitative characteristics and restrictions similar to those we find in conventional accounting: transparency, reliability, etc.

Therefore, through a deductive approach, an accounting model that allows for the measurement of the sustainability objective can be constructed. The opinion that the environment can suffer as a result of any attempt to capture and report its value has been expressed (Maunders, 1996).

3. Voluntary social and environmental disclosures – pros and cons

Voluntary financial and non-financial disclosure practices, in the form of social and environmental accounting and reporting (SEAR), corporate social responsibility reports (CSR reports) or triple bottom line reporting (TBL reporting) are becoming increasingly prevalent among multinational corporations (Gray, 2006). In the majority of cases, the decision to report social and environmental issues is justified through economic reasoning: social and environmental reporting deliver benefits to a range of stakeholders while serving to enhance shareholder value (Spence and Gray, 2007), implying an alignment of social and environmental interests of a broad range of stakeholders with the economic interests of a specific group, that of the shareholders.

Thus, the main substantiation behind the voluntary nature of social and environmental accounting is that, regulation is generally bad for business, and by reducing regulatory pressure companies have the freedom to be efficient and productive, which in turn leads to increased shareholder value. This reasoning is based on the hypothesis that shareholder and stakeholder interests converge.

The concept of creating shareholder value, enforced by the mechanisms of financial markets, is not perfectly compatible with the new managerial philosophy that an organization represents a coalition between the suppliers of resources, acting towards serving the interests of all parties involved by maximizing the *joint* societal wealth (Jensen, 2002). The recognition of the moral rights of other stakeholders upon the organization implies pursuing financial and non-financial objectives, reunited under the *stakeholder value* umbrella.

It is the authors' opinion that the process of accounting realignment to the ever-changing requirements of stakeholders must be analysed in the context of the *diversity* and *divergence* in interests. The literature provides numerous examples where long-term social and environmental interests of stakeholders differ from short and medium-term interests of maximizing shareholder value. In addition, where shareholders' and stakeholders' interests do not meet, the voluntary nature of disclosures allows for the adoption of socio-economic and environmental practices only if they are likely to result in improved economic performance by the corporation (Owen, Swift and Hunt, 2001, quoted by Unerman and O'Dwyer, 2007).

The constant increase in the volume and quality of social and environmental reporting is essential in any response to the growing demands of sustainability. Faced with the evidence of *the need* for reporting, the question is: "Are voluntary disclosures *sufficient*?" (Spence and Gray, 2007).

4. Regulation of social and environmental disclosures from the reflexive modernity theory perspective

The main research hypothesis is the existence of compatibility between the social and environmental objectives of an entity's stakeholders and the objectives of its managers and shareholders, in the form of economic performance and shareholder value maximization. In proving this hypothesis, we begin by stating the role of regulation in diminishing the real and perceived risk of economic activities that in turn leads to the improvement of trust and support form stakeholders, essential elements in creating economic shareholder value.

The link between regulation and economic performance has been previously studied by Porter and van der Linde (1995), who endorsed the idea that better regulation leads to economic efficiency, cost reduction and the production of goods and services with "environmental attributes", valued in consumer markets. Unerman and O'Dwyer (2007) focus on the social

relationship between regulation, risk and trust, thus developing theoretical arguments about the role of regulation in potentially enhancing shareholder value.

According to Giddens' (1990) theories, in the modern age, characterized by duality (security – danger, risk - trust), man relies more and more on the trust placed continuously in interactive "expert systems" supporting life (e.g., expert systems for storing, filtering, purifying, distributing, and managing water resources). The trust placed by non-experts in expert systems is based on the perceived risk, and reflexivity plays an important role in the social construction of perceived risk, by correlating individual knowledge and experiences. Beck (1992) has also identified the correlation between risk and reflexivity in modern society, concerned by the production of wealth as well as the production of risk, as an effect of a process of "reflexive modernization". Beck has isolated the fundamental connection risk – responsibility, risk – trust, and risk – security, emphasizing that at the present, the main issue is to make decisions under conditions of "manufactured uncertainty", where not only is our knowledge base incomplete, but more and better knowledge generates even more uncertainty.

Following the ideas of Giddens (1990), Beck (1992) and Ball (2008), reporting can be viewed as an expert system, because the economic activities undertaken by any entity have the potential of producing social and environmental effects on a large variety of stakeholders. In addition, a relatively small number of individuals outside the reporting system have the knowledge, the resources and the time to assess, understand and value its possible impact.

In the terms defined by Giddens' theory, in the absence of any reason to think otherwise, the majority of an entity's external stakeholders will place their trust in it. In the case of voluntary disclosures, the experience shows they can be ineffective in preventing actions and decisions with negative social and environmental consequences, and the reflexivity process generates an increased level of socially perceived risk, whenever information arises from other sources besides SEAR regarding the destructive impact of a reporting entity. The problem is twofold: first, the socially constructed level of trust in a specific entity and ultimately an industry is diminished; second, the socially constructed level of trust in the expert system that provided the public with false information is diminished, by the mechanisms of reflexivity.

In the actual context, where the perceived level of risk has significantly increased, the placing of trust in influenced, through reflexivity, by the existence of information regarding regulation. First, regulations can limit the social and environmental impact of an entity in the form of externalities. Also, regulations regarding social and environmental disclosures constitute the proof of an existing expert system for monitoring and control, enhancing the credibility of any disclosed information. Both types of regulations reduce the real and the perceived risk, conveying increased confidence from stakeholders, converted into demand, competitive advantage, and, finally, economic performance and shareholder value.

Conclusions

Adopting the concept of stakeholder value implies looking beyond monetary values and requires reporting on new dimensions of social and environmental issues not necessarily having a monetary form. In our opinion, this is an important conceptual challenge faced by the accounting theory that can potentially enforce or destroy its competitive advantage on the information market. Through social and environmental reporting, companies offer future-oriented information regarding the potential impact of their activities, competing with other types of information and reporting from different expert systems.

The reporting models presented comprise theoretical and practical solutions for integrating all reporting dimensions in a conceptual framework for sustainability accounting, proving the *possibility* of regulation.

The previous accounting research has shown that the business environment advocates voluntary disclosures in a deregulated system, offering a justification for *the need* of regulations in social

and environmental reporting, as a way to protect the interests and rights of stakeholders, especially where there is a contradiction with the interests and rights of shareholders. The theories of reflexive modernity have offered the basis for arguing *the need* of regulations independently of the relation between the interests of stakeholders and shareholders, as well as the potential benefits of regulation from the economic performance and shareholder value perspective.

Acknowledgments
This paper is part of the research project no. 155/2007: *Green accounting - transdisciplinary strategies towards social environmental accounting*, funding on the bases of the national competition conducted by National University Research Council (CNCSIS) within the Romanian Ministry of Education.

References
1. Ball, R., What is the Actual Economic Role of Financial Reporting?, Accounting Horizons, Vol. 22, No. 4, 2008
2. Beck, U., Risk society: Towards a new modernity, in M. Ritter (Ed.), London: Sage Publications Ltd., 1992
3. Dascălu, C., Caraiani, C., Guşe, R., Lungu, C., Colceag, F., Full Cost Accounting and Social Environmental Effects on Global Warming Phenomenon, AMIS Conference, 2009
4. Dillard, J., Brown, D., Marshall, R. S., An environmentally enlightened accounting, Accounting Forum, No. 29, 2005
5. Elkington, J., Triple Bottom Line Reporting: Looking for Balance, Australian CPA, 1999
6. Elliot, R., Jacobson, P., US accounting: A national emergency, Journal of Accountancy, 1991
7. Giddens, A., The consequence of modernity, Cambridge: Polity Press, 1990
8. Global Reporting Initiative (GRI), Sustainability Reporting Guidelines, 2000 -2006
9. Gray, R. H., Accounting for the environment. London: Paul Chapman, 1993
10. Gray, R. H., Social, Environmental and Sustainability Reporting and Organizational Value Creation? Whose value? Whose creation?, Accounting, Auditing and Accountability Journal, Vol. 19, No. 6, 2006
11. Hines, R. D., On Valuing Nature, Accounting, Auditing and Accountability Journal, Vol. 4, No. 4, 1991
12. Hopwood, A. G., Accounting Calculation and the Shifting Sphere of the Economic, European Accounting Review, Vol. 1, No. 1, 1992
13. Jensen, M.C., Value Maximization, Stakeholder Theory and the Corporate Objective Function, in Unfolding Thinking, European Financial Management Review, No. 7, 2001
14. Jones, M. J., Accounting for Biodiversity: A Pilot Study, British Accounting Review, No. 28, 1996
15. Lamberton, G., Sustainability Accounting – A Brief History and Conceptual Framework, Accounting Forum, No. 29, 2005
16. Mathews, M. R., Socially Responsible Accounting, London: Chapman & Hall, 1993
17. Maunders, K., Environmental accounting - Is it necessarily an Oxymoron? Environmental Accounting Symposium: Canberra: Australian National University, 1996
18. Miller, P., Accounting as Social and Institutional Practice: An Introduction, in A. G. Hopwood and P. Miller (eds), Accounting as a Social and Institutional Practice, Cambridge University Press, 1994
19. Miller, P., Napier, C.J., Genealogies of Calculation, Accounting, Organizations and Society, Vol. 12, 18, Nos. 7-8, 1993
20. Miller, P., The Margins of Accounting, European Accounting Review, Vol. 7, Nos. 4, 1998

21. Owen, D. L., Swift, T., Hunt, K., Questioning the role of stakeholder engagement in social and ethical accounting, auditing and reporting, Accounting Forum, Vol. 25, No. 3, 2001
22. Porter, M. E., van der Linde, C., Toward a new conception of the environment-competiveness relationship, Journal of Economic Perspectives, Vol. 9, No. 4, 1995
23. Porter, T. M., Trust in Numbers: The Pursuit of Objectivity in Science and Public Life, Princeton University Press, 1995
24. Spence, C., Gray, R. H., Social and Environmental Reporting and the Business Case, ACCA Research Report no. 98, London, 2007
25. Unerman, J., O'Dwyer, B., The business case for regulation of corporate social responsibility and accountability, Accounting Forum, No. 31, 2007